

# INSTRUCTION MANUAL

for



## BRNO MDL 4 BOLT ACTION .22 RIFLE

A COPY OF THE INSTRUCTION MANUAL FOR EACH BRNO MDL 4 FIREARM IS AVAILABLE FROM THE IMPORTER ON REQUEST. THESE INSTRUCTION MANUALS CONTAIN IMPORTANT WARNINGS WHICH SHOULD BE UNDERSTOOD BEFORE USING THESE FIREARMS. THIS INSTRUCTION MANUAL SHOULD ALWAYS ACCOMPANY THIS FIREARM AND BE TRANSFERRED WITH IT UPON CHANGE OF OWNERSHIP.

**HART ARMS COMPANY**  
P.O. Box 20338 • Albuquerque, NM 87154

*The BRNO MDL 4, an extremely accurate rifle, is considered the finest production rimfire target rifle in the world.*

*Even from afar, the exquisite European styling typical of all BRNO firearms is unmistakable.*

*As one approaches the manifest attention to detail, superior technical design and obvious strength, it reminds one of a quality high power rifle. However, the true fortes of these rifles are accuracy and reliability.*

*Only premium materials such as special Poldi Electro Steel and dense hardwood stocks are incorporated in these BRNO rifles. These rifles are totally steel and wood.*

*When you feel the balance, witness the accuracy and experience the dependability, you will be convinced this rifle deserves a prominent position on your gun rack.*

## SPECIFICATIONS

**BRNO MDL 4** — The heart of the BRNO MDL 4 is the massive, thick-walled, one piece, forged receiver with integral dovetails for scope mounts. All critical surfaces are machined and hardened. The inner front portion is threaded to receive the barrel.

The barrel is cold forged from special Poldi Electro Steel, rifled with 6 lands, with one twist in 16 inches. The barrel length is 27.5 inches to ensure remarkable accuracy.

The bolt is machined and hardened with dual recessed extractors. The ejector protrudes from the receiver behind the magazine. Two large locking lugs are carried on the bolt handle. The safety is located on the top of the bolt and when activated, locks the action and disengages the firing pin. The firing pin is forged and intricately machined.

The trigger is housed by a steel trigger guard and floorplate. The weight of the trigger pull is regulated by adjusting the trigger spring. The globe front sight and rear tangent sights are dovetailed into the barrel. The rear tangent ramp and front globe sight are quickly detachable. The rear sight is adjustable from 25 to 200 metres.

The wood stock is oil-polished dense hardwood with mounted front and rear sling swivels.

A 5-shot clip magazine comes standard with the rifle and a 10-shot clip is available as an option.





We are proud that you have chosen a BRNO firearm. This BRNO MDL 4 firearm is manufactured by Zbrojovka BRNO N.P., Czechoslovakia, a comprehensive state enterprise combining manufacturing and trade, and an independent economic corporate body operating under the guidance of the governmental departments concerned. The factories and institutions of BRNO have a powerful economic and technical basis and an immense productive capacity. BRNO has a long history and rich experience especially in manufacturing firearms.

BRNO has incorporated excellent materials and craftsmanship in this firearm and with just reasonable care it should provide you with years of pleasure and dependable service. If, by chance, you have any observations to make regarding its performance or appearance, we hope you will write Hart Arms Company, P.O. Box 20338, Albuquerque, New Mexico 87154.

We would also like to know more about you as a quality firearm owner and would be grateful if you could take but a moment to complete and return the purchaser's record card found on the inside back cover.

### NEW GUN OWNER'S RECORD

Keep this record for future reference

Model \_\_\_\_\_

Serial Number \_\_\_\_\_

Caliber .22 Long Rifle Only

Purchase Price \_\_\_\_\_

Purchased From \_\_\_\_\_

Date of Purchase \_\_\_\_\_

### YOU ARE RESPONSIBLE FOR FIREARMS SAFETY

Please let us remind you that, as a gun owner, you accept a set of responsibilities of the most demanding nature. How seriously you carry out these responsibilities can be the difference between life and death. Mistakes made with guns are final and cannot be paid for with money or regret. **PLEASE READ AND UNDERSTAND THE PROPER HANDLING AND INSTRUCTION PROCEDURES OUTLINED IN THIS BOOKLET BEFORE USING YOUR NEW FIREARM.** There is no excuse for careless or abusive handling of any firearm. At all times handle this firearm with intense respect for its force and power.

Please read and practice the following cautions:

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## SAFETY PRECAUTIONS

1. ALWAYS KEEP THE MUZZLE OF YOUR RIFLE POINTED IN A SAFE DIRECTION even though you are certain the rifle is unloaded. Never point your rifle at anything you do not intend to shoot. Be extremely alert and aware of all persons and property within the range of your ammunition.
2. WHENEVER YOU PICK UP YOUR RIFLE, ALWAYS OPEN THE ACTION AND VISUALLY CHECK THE CHAMBER, RECEIVER AND MAGAZINE to be certain they do not contain any ammunition.
3. WARNING — NEVER TRUST YOUR RIFLE'S MECHANICAL "SAFETY DEVICE". The word "safety" describes your rifle's firing pin block mechanism. This mechanical device is designed to place your gun in a SAFER status. No guarantee can be made that the gun will not fire even if the "safety" is in the "on safe" position.

Like any mechanical device a safety can sometimes fail; it can be jarred or inadvertently manipulated into an unsafe condition. Mechanical "safeties" merely aid safe gun handling and are no excuse for pointing your rifle's muzzle in an unsafe direction.

While it is a good idea to "test" your rifle's mechanical "safety" periodically for proper function, never test it while your rifle is loaded or pointed in an unsafe direction.

Safe gun handling does not stop with your gun's mechanical "safety" device. It starts there. Always treat this rifle with the respect due a loaded, ready-to-fire firearm.

4. ALWAYS UNLOAD YOUR RIFLE WHEN NOT IN USE. Your responsibilities do not end when your rifle is unattended. **Store your rifle and ammunition separately - beyond the reach of children. Take all safe guards to insure your gun does not become available to untrained, inexperienced or unwelcomed hands.**
5. BEWARE OF BARREL OBSTRUCTIONS - for the safety of both your rifle and yourself. Before you load your rifle, open the action, BE SURE NO LIVE ROUND IS IN THE CHAMBER OR MAGAZINE - then glance through the barrel to be sure it is clear of any obstruction. Be careful how you carry your rifle. Do not permit the muzzle to dip into mud, snow or water. Do not thrust your barrel through a thicket with the possibility of ramming a twig into the bore. An infinite variety of objects may inadvertently lodge in a barrel. It takes only a small obstruction to dangerously increase pressures.  
Before the first firing of your rifle, clean the bore with a cleaning rod and patch. Wipe away any anti-rust compounds in the action-chamber areas.
6. DO NOT SNAP THE HAMMER ON AN EMPTY CHAMBER - THE CHAMBER MAY NOT BE "EMPTY" Treat every gun with the respect due a loaded gun - even though you are certain the gun is unloaded.



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7. **WHENEVER YOU HAND YOUR RIFLE TO ANOTHER PERSON ALWAYS OPEN THE ACTION.** Whenever you accept a gun from another person, open the action if it isn't already open, and inspect the chamber and magazine to be sure all live rounds are cleared.
  8. **BE SURE OF YOUR TARGET.** Be sure no persons, livestock, buildings or other objects are behind or near your target. Be absolutely sure of your target particularly during low light periods.
  9. **BE SURE OF YOUR BACKSTOP.** Know the range of your ammunition and be certain there is no chance of damage or accident. Never shoot at water or hard objects.
  10. **ALWAYS UNLOAD ANY GUN'S CHAMBER AND MAGAZINE BEFORE CROSSING A FENCE, CLIMBING A TREE, JUMPING A DITCH** or negotiating other obstacles. Never lean a loaded gun against a fence, tree, car or similar object.
  11. **FOR EYE AND EAR PROTECTION** we recommend that you always wear shooting glasses and hearing protection when shooting.
  12. **AMMUNITION** - Your rifle must be used only with .22 caliber rimfire ammunition. Only standard or high velocity .22 Long Rifle cartridges will properly function in this rifle.
  13. **IF YOUR RIFLE FAILS TO FIRE DUE TO A MALFUNCTION OF EITHER RIFLE OR AMMUNITION** keep the muzzle pointed in a safe direction and hold this position for a minimum of 30 seconds. Carefully open the action and remove the cartridge. If the primer is indented, it should be disposed of in a way that can cause no harm. If the primer is not indented, your rifle should be examined by a qualified gunsmith and the cause of the malfunction should be corrected before further use.
  14. **SUPERVISE AND EDUCATE.** Stress firearms safety to all members of your family, especially to children and non-shooters. Don't be timid when it comes to gun safety. If you observe other shooters violating safety precautions, politely suggest safer handling practices.
  15. **UNAUTHORIZED SERVICING.** Hart Arms Company (HARCO) cannot assume any responsibility for injuries suffered or caused by unauthorized servicing, alterations or modifications to BRNO MDL 4 firearms.
  16. **HART ARMS COMPANY (HARCO)** cannot assume any responsibility through the use of unsafe or improper arms and ammunition combinations. It is your responsibility to read and heed all warnings including those that appear in this instruction manual and on ammunition boxes and to secure the most up to date information on the safe handling procedures for your BRNO MDL 4 gun.
  17. **MAINTENANCE.** We call your attention to the fact that your gun is a mechanical device and as such, is subject to wear and need of periodic inspection, adjustment, and service. Harts Arms Company (HARCO) recommends that these services be performed by a competent gunsmith.

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## NOMENCLATURE

In conventional gun terminology the position and movement of gun parts are described as they occur with the gun horizontal and in normal firing position. (See Figure 1.)

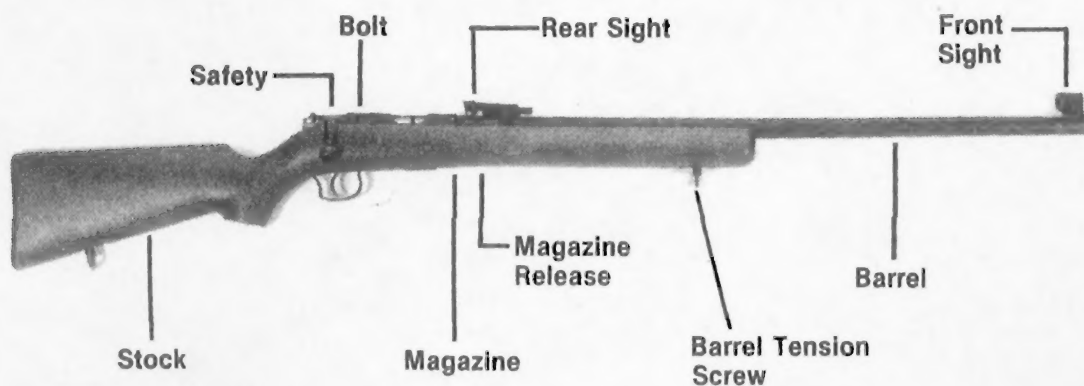


Figure 1

## CAUTION

Before firing your rifle, make sure there are NO OBSTRUCTIONS in the barrel. Wipe away all grease from the chamber and bore of the barrel.

**AMMUNITION** - Your BRNO MDL 4 must be used only with .22 caliber rimfire ammunition. Only standard or high velocity .22 Long Rifle cartridges will properly function in this rifle.

## GENERAL OPERATING PROCEDURE

Your new BRNO MDL 4 is a bolt action repeating rifle. With cartridges in the box magazine and one in the chamber, the rifle will fire a single round when the trigger is squeezed. Operation of the bolt handle by lifting, pulling rearward and returning to original position will eject the empty case, cock the bolt and chamber a fresh round. At this point, the rifle is ready to fire the second round with a squeeze of the trigger. This sequence of operation may be followed until both magazine and chamber are empty. When cycling the action, the bolt handle should be operated smoothly, but positively through both opening and closing movements.

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## TO INSTALL THE BOLT

The bolt of your rifle is packed separately in the carton in which your rifle is shipped. To install the bolt, pull on the trigger while inserting the bolt into the receiver. Once the bolt has moved to the closed position, release the trigger. This will lock the bolt into the receiver.

## LOADING THE RIFLE

The BRNO MDL 4 utilizes a detachable box magazine holding 5 rounds. Another cartridge may be inserted directly into the chamber providing a total cartridge capacity of 6 rounds.

To remove the magazine, hold the rifle in a natural position with the barrel pointing toward the ground. Then with either hand positioned under the magazine pull rearward on the magazine release lever with the index finger. The magazine will slide easily from its recess. Cartridges are loaded by pressing each downward until they are retained by the rim of the magazine.

Reinsert the loaded magazine into the rifle. A sharp, metallic click will indicate that the magazine is fully inserted and engaged with the magazine latch.

In the event you wish to load a cartridge in the chamber and retain a full magazine, the following procedure may be used:

Hold the rifle on its side with the ejection port up and the bolt open. Place a single cartridge in through the ejection port into the chamber and close the bolt. The fully loaded magazine may then be inserted giving a 6 shot capacity.

**CAUTION:** In the above procedure, the rifle is fully cocked after the bolt has been closed. Make certain the rifle is pointed in a safe direction during the loading operation and immediately place the bolt safety in the safe position upon chambering the cartridge. For maximum safety it is always preferable to never chamber a cartridge until a shot is imminent.

## UNLOADING THE RIFLE

First, eject the cartridge in the chamber by operating the bolt rearwardly until it stops against the bolt stop. With the bolt to the rear, remove the magazine from the rifle. The chamber should then be inspected to make sure all cartridges have been ejected. Cartridges in the magazine may be removed by stripping them out with the thumb.

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## SAFETY

The safety may be engaged only when the bolt is fully locked. Engagement of the safety holds the bolt securely locked.

The cocking piece protrudes noticeably from the rear of the bolt when cocked and serves as a cocking indicator which can be felt as well as seen.

To be properly cautious, the safety should always be engaged except when prepared to fire at the target. (Never depend on the safety or any mechanical device to justify careless handling. Always keep the muzzle pointed in a safe direction.)

**WARNING** When engaging the safety, be sure that it is moved all the way to the extreme right position. The safety lever will engage the cocking sleeve of the bolt. (See Figure 2) There is extra resistance to the safety movement and this should not be confused with the true safety position.

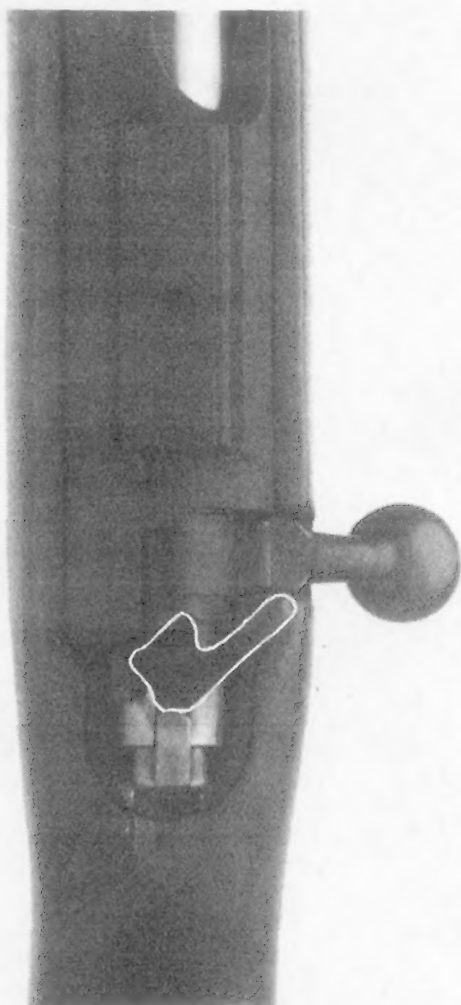


Figure 2  
On Safe position

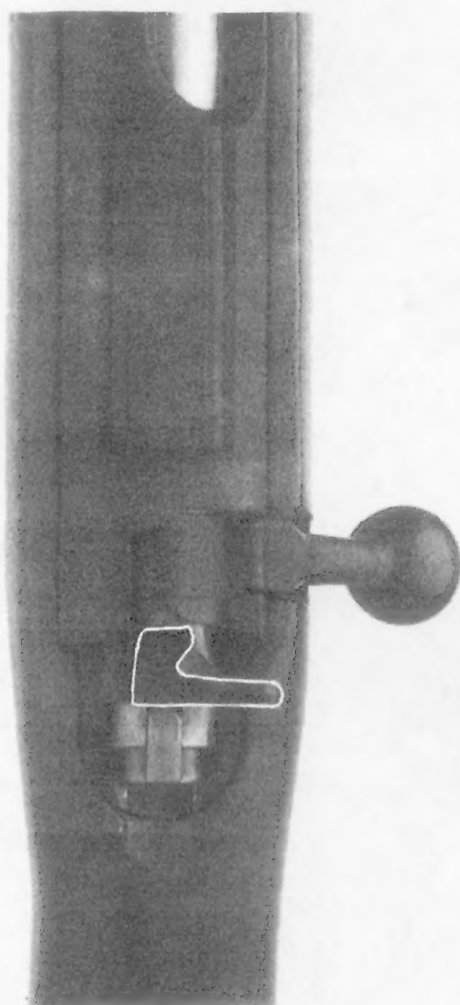


Figure 3  
Off Safe position



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## TRIGGER

The trigger mechanism has been adjusted at the factory to provide a pull consistant with safety. It is recommended that only a competent gunsmith should attempt to make any change to the weight of pull of the trigger.

## SIGHTING

The BRNO MDL 4 is provided with an adjustable rear sight set in a dovetail in the barrel, allowing it to move forward or back as the user wishes and a globe front sight with insert. The rifle comes from the factory with the sights set for a distance of 25m. For greater distances, the elevator of the rear sight must be used to raise the rear sight.

If a horizontal correction is required, the rear sight must be moved a very slight amount. This is accomplished by moving the base of the rear sight in the same direction you want the bullet impact to move; i.e. if you want the point of bullet impact to move to the left, move the rear sight to the left; if you want to move the point of bullet impact to the right, move the rear sight to the right.

*Horizontal adjustment of the rear sight is a process of trial and error using the method described above.*

In sighting-in, remember this simple rule: always move the rear sight in the same direction you want the point of bullet impact to move.

The receiver of the BRNO MDL 4 is grooved to accept groove or tip-off type scope mounts and receiver sights.

## CLEANING SUGGESTIONS

The correct procedure for cleaning your rifle is as follows:

**WARNING: THIS RIFLE MAY BE DISCHARGED BY PULLING THE TRIGGER FORWARD! BE CERTAIN THIS RIFLE IS UNLOADED AND THE ACTION IS OPEN BEFORE ATTEMPTING TO REMOVE THE BOLT ASSEMBLY.**

1. Remove the breech bolt by lifting the bolt handle and pulling bolt rearwardly until it stops against the bolt stop. While resting the rifle on a bench, pull back on the trigger while continuing to pull the bolt rearward. This will allow the bolt to be removed from the receiver. Using a .22 rifle rod with tip and patch large enough for a snug fit in the bore, insert the rod and patch through the receiver into the chamber end of the barrel and run back and forth several times. The rod and patch should go completely through the bore to the muzzle and back to the chamber end of the barrel. Avoid cleaning this rifle from the muzzle because the cleaning rod may strike the crown of the muzzle and cause damage in this area which can affect the accuracy of the rifle.

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2. Inspect the chamber and bore for powder fouling. A normal amount of powder residue can be expected and is not serious. It can usually be removed by repeating Step No. 1, using a patch saturated with a nitro-solvent. If or when fouling should become heavy, it can be removed with a brass bore brush. Dip the brush in nitro-solvent and scrub the chamber and bore until the fouling is removed. To prevent brass bristles from breaking off, the brush should be pushed completely through bore before being withdrawn.

After fouling has been removed, the bore should be wiped dry and then a slightly oiled patch run through it for preservation. A good grade gun oil is recommended.

3. The bolt and interior of the receiver should be wiped off as well as possible with a clean rag. Any dried oil in these areas and on the magazine follower should be removed. Follow this cleaning with a very light film of oil on the affected parts. Do not pour large quantities of oil into the action (an excess of oil will run into the wood and cause it to soften or warp).

To replace the bolt, pull back on the trigger while inserting the bolt into the receiver. Once the bolt has moved to the closed position, release the trigger. This will lock the bolt into the receiver.

It is not recommended that the rifle be disassembled by other than a competent gunsmith, since internal parts are difficult to reassemble because of close tolerances and small parts are easily lost.

4. Wipe all exposed metal surfaces with an oiled cloth making sure to wipe the gun clean of all finger marks where moisture will accumulate. Ordinary good judgement will, of course, indicate that the metal of the gun should receive a light film of oil any time the gun has been exposed to bad weather or excessive handling.
5. The wood surfaces can be protected with an application of any good quality furniture wax.

## SERVICE

Before shipment, every BRNO MDL 4 firearm is carefully inspected and test fired in order to prove that it is in perfect condition and conforms to our specifications and standards.

## WARNING

CHECK CHAMBER BEFORE SHIPPING FIREARM. If firearms are sent to us in a loaded condition, we must notify Federal authorities.

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*As one approaches the manifest attention to detail, superior technical design and obvious strength, it reminds one of a quality high power rifle. However, the true fortes of these rifles are accuracy and reliability.*

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## **BRNO MDL 4 .22 LR RIFLE - STANDARD FEATURES**

- Globe front sight (interchangeable inserts available).
- Adjustable rear sight (25-200m). Deluxe click adjustable open rear sight, (sight assembly slides on dovetail so that you may put it where you focus best). Easily removable, no screw holes to fill.
- Mounted, wide sling swivels.
- Hardwood stock with beaver tail forend (target stock, no checkering).
- 27-1/2" Round Bull Barrel.
- Counter Sunk Crown.
- Barrel tension adjustment screw in forend for maximum accuracy.
- 5 round magazine.

## **OPTIONAL FEATURES**

- 10 round magazine.
- BRNO 1" scope mount rings - will take up to a 52mm scope bell.
- Original BRNO target grade diopter rear sight with extra diopters.
- Extra globe sight inserts.

## **SPECIFICATIONS**

**BRNO MDL 4** — The heart of the BRNO MDL 4 is the massive, thick-walled, one piece, forged receiver with integral dovetails for scope mounts. All critical surfaces are machined and hardened. The inner front portion is threaded to receive the barrel.

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The barrel is cold forged from special Poldi Electro Steel, rifled with 6 lands, with one twist in 16 inches. The barrel length is 27.5 inches to ensure remarkable accuracy.

The bolt is machined and hardened with dual recessed extractors. The ejector protrudes from the receiver behind the magazine. Two large locking lugs are carried on the bolt handle. The safety is located on the top of the bolt and when activated, locks the action and disengages the firing pin. The firing pin is forged and intricately machined.

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The wood stock is oil-polished dense hardwood with mounted front and rear sling swivels.

A 5-shot magazine comes standard with the rifle and a 10-shot magazine is available as an option.





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## SPECIFICATIONS

MODEL:	BRNO MDL 4
ACTION TYPE:	bolt
CAL.:	.22 LR
BARREL SPECIFICATIONS:	
LENGTH:	700mm (27.5 inches)
RIFLING TWIST:	1 in 16
# LANDS:	6
MATCH CHAMBER	
OVERALL LENGTH:	45 inches
WEIGHT:	4.6 kg (10.12 lbs.)
MAGAZINE CAPACITY:	5 or 10
REAR SIGHT SETTINGS (m):	25-200

\*Specifications are subject to change without notice.

**Original BRNO optional features are available from this Importer.**

1. 5 Round Magazine	\$18.50
2. 10 Round Magazine	\$25.00
3. DIOPTER Rear Sight With click windage and elevation adjustment. All steel construction. (Includes clear refractive plastic front sight inserts).	\$105.00
4. One inch Scope Rings To fit BRNO Dovetail. (Available in medium or high).	\$40.00
5. Extra Clear Refractive Plastic Front Sight Inserts	\$7.50

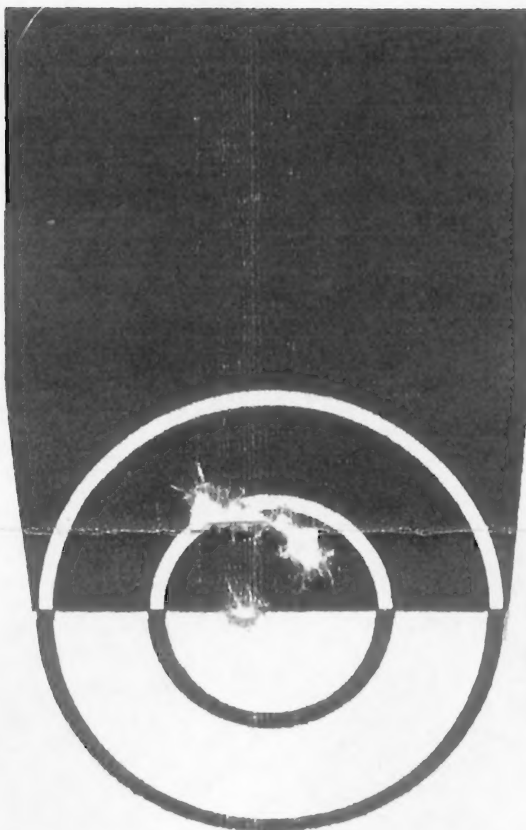
Order From:  
**HART ARMS COMPANY**  
P.O. Box 20338  
Albuquerque, NM 87154

\*Prices subject to change without notice.



AERON BRNO

Distance m/yds : 50/55



Model/Rifle - No.:

ZKM 456 St-Match /.....  
ZKM 456 Lux /.....  
ZKM 456 Lux Mi /.....  
ZKM 456 L /.....*19669*  
ZKM 456 LK /.....  
ZKM 456 Biathlon /.....  
ZKM 455 Stecher /.....  
ZKM 451 /.....  
ZKM 452 /.....

Caliber: .22 LR

Ammunition lot-No.: *ELEY*

Shooter:

Date:

AERON BRNO s.r.o.

Increase Your Accuracy

The Original

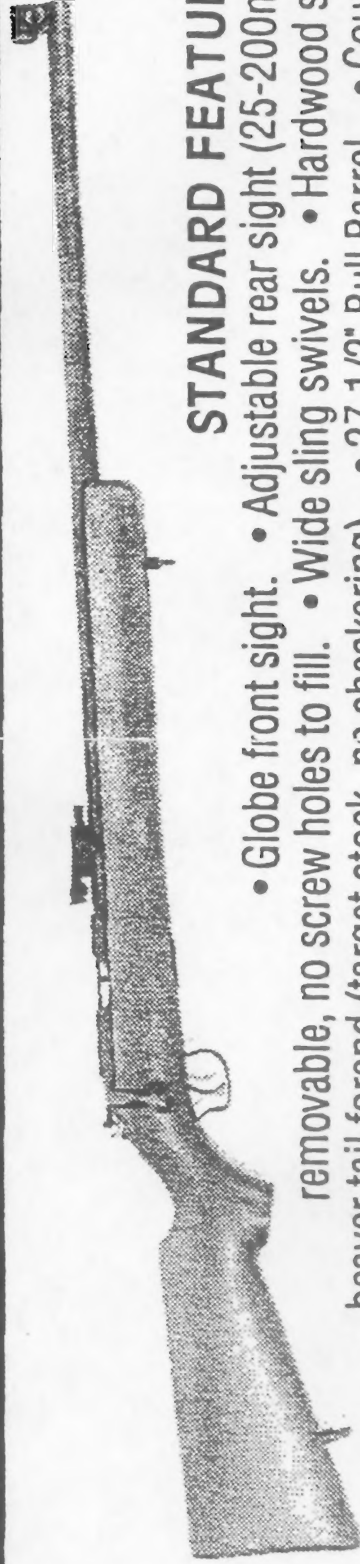


.22 cal. Bull Barrel Rifle

Imported By  
**HART ARMS CO.**

P.O. Box 20338  
Albuquerque, NM 87154  
Phone or Fax: 505-294-4222  
9 AM-5 PM Monday-Friday

# THE MOST ACCURATE AND FINEST PRODUCTION RIMFIRE TARGET RIFLE IN THE WORLD. LIMITED QUANTITY.



## STANDARD FEATURES

• Globe front sight. • Adjustable rear sight (25-200m). Easily removable, no screw holes to fill. • Wide sling swivels. • Hardwood stock with beaver tail forend (target stock, no checkering). • 27 1/2" Bull Barrel. • Counter Sunk Crown. • Barrel tension adjustment screw. • 5 round clip. • Black Parkerized Finish. • Wt. 4.6 kg.

Superior technical design. Only premium materials such as special Poldi Electro Steel and dense hardwood stocks are incorporated in these BRNO rifles. These rifles are totally steel and wood. **Like New Condition.**

**Scope Rings, Receiver Sights, and Clips Available.**

**ORDERING INSTRUCTIONS:** Copy of FFL signed in ink required for all purchases. Orders filled within 48 hours of receipt of order. **TERMS:** Cashier's Check, Money Order or Certified Check with order: COD extra charge. **RETURNS:** Refund or replacement if returned pre-paid within 3 days.